

AMENDMENTS TO THE CLAIMS

The claims have been amended as set forth in the following listing of the claims:

1. (canceled)

2. (previously presented) An inflator according to claim 13, wherein the single rupturable plate and the igniter are arranged such that an imaginary central axis of the single rupturable plate that penetrates a center of the single rupturable plate and an imaginary central axis of the actuating portion of the igniter towards which the output is discharged are coincident with each other.

3. (previously presented) An inflator according to claim 13, wherein the gas introducing chamber directs a flow of the pressurized gas along a longitudinal axial direction of the cylindrical inflator housing, and the igniter accommodating chamber directs the flow of the pressurized gas along a direction orthogonal to the longitudinal axial direction of the inflator housing,

wherein a center of the second opening coincides with a center of the third opening.

4. (previously presented) An inflator according to claim 13,

wherein, the single rupturable plate is a cylindrical cup inserted into the gas introducing chamber through the first opening, such that a side wall of the cylindrical cup opposes and closes the second opening.

5. (canceled)

6. (previously presented) An inflator according to claim 13, further comprising:

a cylindrical retainer for holding the igniter therein and adapted to be inserted into the igniter accommodating chamber through the third opening,

wherein, the single rupturable plate is attached to one end of the cylindrical retainer prior to an insertion of the cylindrical retainer through the third opening, such that the single rupturable plate closes the second opening once the cylindrical retainer is inserted into the igniter accommodating chamber.

7. (previously presented) An inflator according to claim 13, further comprising:

an annular fixture defining a central hole and adapted to be inserted into the ignition accommodating chamber through the third opening,

wherein the single rupturable plate is fixed to the annular fixture to cover the central hole, such that single the rupturable plate is sandwiched between the annular fixture and a surface defining the second opening to close the second opening once the annular fixture is inserted into the igniter accommodating chamber.

8. (currently amended) An inflator, comprising: according to claim 13
a cylindrical inflator housing having a first end that is closed and a second end defining
an opening, and adapted to accommodate a pressurized gas therein, the cylindrical inflator
housing extending in a longitudinal axial direction thereof;

a diffuser portion attached to the second end of the cylindrical inflator housing, the diffuser portion including,

a gas introducing chamber in communication with the cylindrical inflator housing through a first opening,

an igniter accommodating chamber for accommodating an igniter and in communication with the gas introducing chamber through a second opening, the igniter accommodating chamber having a third opening, for inserting the igniter, at a portion opposing the second opening, and

a gas discharging hole provided in a wall of the diffuser portion for discharging the pressurized gas, an imaginary center axis of the gas discharging hole being parallel to an imaginary center axis of the first opening, such that the pressurized gas is discharged in a direction parallel to the longitudinal axial direction of the cylindrical inflator housing; the diffuser portion defining therein a gas path extending from the first opening to the gas discharging hole; and

only a single rupturable plate provided within the diffuser portion and blocking the gas path prior to activation of the inflator,

wherein the diffuser portion is provided with a fourth opening communicating with the gas introducing chamber for inserting the single rupturable plate into the gas introducing chamber through the fourth opening, and a lid is provided to close the fourth opening.

9. (currently amended) An inflator according claim 13, wherein the igniter is mounted in the igniter accommodating chamber~~ignition accommodating chamber~~, the inflator further comprising:

a lead wire connected to the igniter via a connector for transmitting an operation signal to the igniter,

wherein the lead wire extends in a direction perpendicular to an imaginary center axis of the second opening.

10. (previously presented) An inflator according to claim 13, further comprising:

a cylindrical diffuser housing having a first end defining an opening and a second end which is closed, the cylindrical diffuser housing having, in a peripheral wall thereof, a second gas discharging hole, the first end of the cylindrical diffuser housing being connected to the diffuser portion to cover the gas discharging hole and extends along a direction of an imaginary longitudinal central axis of the inflator housing to receive the pressurized gas discharged from the gas discharging hole and discharging the received pressurized gas through the second gas discharging hole.

11. (previously presented) An inflator according to claim 10, wherein a plurality of second gas discharging holes are formed in on a side wall of the cylindrical diffuser housing at equal intervals.

12. (previously presented) An air bag system comprising:
activation signal-outputting means including an impact sensor and a control unit; and
a module case accommodating an inflator according to claim 13 and an air bag.

13. (currently amended) An inflator, comprising:
a cylindrical inflator housing having a first end that is closed and a second end defining an opening, and adapted to accommodate a pressurized gas therein, the cylindrical inflator housing extending in a longitudinal axial direction thereof;
a diffuser portion attached to the second end of the cylindrical inflator housing, the diffuser portion including,
a gas introducing chamber in communication with the cylindrical inflator housing through a first opening,
an igniter accommodating chamber for accommodating an igniter and in communication with the gas introducing chamber through a second opening, the igniter accommodating chamber having a third opening, for inserting the igniter, at a portion opposing the second opening, and

a gas discharging hole provided in a wall of the diffuser portion for discharging the pressurized gas, an imaginary center axis of the gas discharging hole being parallel to an imaginary center axis of the first opening, such that the pressurized gas is discharged in a direction parallel to the longitudinal axial direction of the cylindrical inflator housing; the diffuser portion defining therein a gas path extending from the first opening to the gas discharging hole; and

only a single rupturable plate provided within the diffuser portion and blocking the gas path prior to activation of the inflator,

wherein, the igniter accommodating chamber is freely in communication with an environment outside of the diffuser portion through the gas discharging hole prior to an activation of the inflator.

14. (previously presented) An inflator according to claim 13, wherein the second opening is provided such that an imaginary center axis of the second opening is perpendicular to the longitudinal axial direction.

15. (previously presented) An inflator according to claim 11, wherein an air bag is connected to the cylindrical diffuser housing.

16. (canceled)

17. (new) An inflator, comprising:

a cylindrical inflator housing having a first end that is closed and a second end defining an opening, and adapted to accommodate a pressurized gas therein, the cylindrical inflator housing being longer in a longitudinal axial direction than in a radial direction thereof;

a diffuser portion attached to the second end of the cylindrical inflator housing, the diffuser portion including,

a first opening closed by a single rupturable plate before activation of the inflator, an igniter accommodating chamber for accommodating an igniter therein, and

a gas discharging hole provided in a wall of the diffuser portion and discharging the pressurized gas therethrough; and

a retainer attaching the single rupturable plate and provided within the diffuser portion and around the igniter such that the retainer directly attaches the igniter and the igniter accommodating chamber is isolated from the pressurized gas by the single rupturable plate before activation of the inflator.

18. (new) An inflator according to claim 17, wherein the retainer is provided within the diffuser portion such that the igniter is surrounded by the retainer.

19. (new) An inflator according to claim 17, wherein the igniter is provided within the retainer.

20. (new) An inflator according to claim 17, wherein the retainer is provided within the diffuser portion such that the retainer is freely in communication with an environment outside of the diffuser portion thorough the gas discharging hole prior to activation of the inflator.